



Raising a Mathematician Foundation

Regn. No. E/8816 Thane Region
Registered under
Bombay Trust Act, 1950

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IMPORTANT

1. PLEASE ENSURE THAT YOU HAVE READ THE BELOW DOCUMENTS VERY WELL BEFORE YOU FILL UP THE FORM.
2. Take a print out of this 9-page document for your reference.
3. Mention your email address without any spelling errors and ensure that you have saved our email address so that our emails do not go to your spam folder.
4. Attach duly filled up Parent Consent Form (compulsory) and Recommendation Letter (recommended, but optional in case you don't have a teacher who can recommend). Attached any certificates that you may have received related to Math in the past three years.
5. We receive a lot of calls and it is not possible to explain all the below said instructions and details of the program to each and every caller. Phone calls to our number will only be entertained only after you have read the below documents.



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Brochure of the 7th Annual National-level Mathematics Training Program for High School Students

Objective: To guide young and bright Mathematical talent (age 13-15) to take up a career in Mathematics and encourage them to pursue research either in pure or applied Mathematics.

Mathematics is an important subject which helps in logical thinking and improves the reasoning-ability of a student. The current global scenario demands individuals to analyze all the possibilities in solving a problem and derive a decision based on the same. Mathematics similarly, enables students to approach situations from different angles and dig out the best possible solution. Globally, 13-15 is the age group in which talented students are groomed and provided the necessary guidance and direction to excel in their area of interests. In academics, Mathematics is a subject which plays a pivotal role in the performance of a student in any area he or she explores later.

The present structure of spotting young mathematical talent is by conducting examinations. And the guidance provided to the many talented students lasts only till the examination hall and does not facilitate a continuous learning. Therefore the learning process remains incomplete, scraping only through the surface of their real potential.

With *Raising a Mathematician Training program* (RAM TP), we aim at providing a holistic and complete guidance to talented young teenagers. Our program covers two major aspects of learning - the **convergent thinking** and the **divergent thinking**. In convergent thinking we help students understand different scenarios and logically come to a unified conclusion. Whereas in divergent thinking we help them explore different directions and find creative solutions. Using Mathematics a student is trained to develop logical thinking thereby improving his convergent thinking.

The unique and the best aspect of this program is that it works independent of any grading systems and hence the students will be encouraged to take intellectual risks. The program stresses on questioning and looking at the proofs of various mathematical concepts so as to understand the

thought process behind its origin and encourage the students to develop a research attitude. The program also tries to knit together various topics of algebra and geometry, and encourage students to think about its applications in the real-life scenarios. We believe in inter-disciplinary approach and not compartmentalize Mathematics into Algebra, Geometry, Arithmetic, etc. This division is for convenience and connecting these different areas should be encouraged and highlighted.

Highlights of the program:

1. Conceptual understanding of secondary/higher secondary level Mathematics along with reasoning.
2. Proving theorems so as to understand the thought process behind the same.
3. Learning Mathematical concepts beyond the curriculum and its application in daily life.
4. Group discussions on various Mathematical topics to improve the skills of communication.
5. Creating a pool of like-minded students who can share their knowledge base, encourage, motivate and get motivated by the fellow students.
6. Guest lectures by eminent professors of Mathematics and industry experts who are actively involved in research and practice of Mathematics in pure or applied areas.

Target of the program

At the end of the program, the student will be able to understand higher secondary level Mathematics and correlate different topics, thereby getting a holistic view of the subject. The student will be able to appreciate the application of mathematical concepts in allied areas and hence understand those subjects better. Students will be encouraged to work on mathematical topics and present papers and display exhibits in National Conferences.



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Topics covered in the program in the past years

- Non-Euclidean geometry, number theory, indeterminate equations, cryptography, game theory, financial mathematics, proofs, sequences and series, correlation and regression, permutations and combinations, algorithms, introduction to graph theory, mathematical logic, theory construction. For senior batch - philosophy of artificial intelligence, econometrics, machine learning, multiple regression.
- Discussions on the work of eminent mathematicians.
- History of Indian Mathematics in today's context and scope of further research.

Course Designing Committee

1. Prof. Mandar Bhanushe (M.Sc. M.Phil. in Mathematics from University of Mumbai) – Asst. Professor in Institute of Distance and Open Learning in University of Mumbai. He has conducted workshops on Free Open Source Software like Geogebra and Latex, and on Learning Management Systems like Moodle. He was the receiver of the prestigious National Award for Best Education Webinar Series at Indian Education Congress, 2013.
2. R Hariharan (CA, CMA, NET, M.Com) – Currently pursuing research in Managerial Accounting at Michigan State University. Hariharan was is a Deloitte fellow and was awarded Jack and Maryl Gray endowed scholarship by Michigan State University for the best incoming accounting student in 2016. He secured the first rank in CMA all over US in the year 2017. Hariharan has also completed five papers in Actuarial Science and was the receiver of the esteemed *Chandramouli Award* from ICAI for best paper in Mathematics in PE-I. He also

secured *All India Rank* in CA PE-I and PE-II. He blends Mathematics, Statistics, Finance and Economics in his sessions. For his contribution to the field of education through *RAM Foundation*, he received the social service award from ICAI in Aug 2015.

3. Vinay Nair (M.Com) – Founder of *Vichar Vatika*, he conducts year-long Math programs in Mumbai, experiential learning programs, workshops, courses, camps, online classes and seminars on various areas in Mathematics in different parts of the country and abroad. He specialises in identifying talented students in Mathematics and mentoring them. In Sept 2018, he gave a TEDx ED talk on [Goals of Mathematics Education](#) and in March 2019 a TEDx talk on *History of Mathematics in India*
4. Govinda Goyal (CA) – has worked with corporate giants like Citibank and turned his focus to teaching CA and CIMA aspirants. He was an all India rank holder in CPT, IPCC and CA Inter. He has received the Chandramouli award from ICAI for the best paper in Mathematics for PE-1.
5. Bhas Bhamre – has been into training students for RMO since over a decade. He is a resource person for Mathematics for various National level programs and a teacher par excellence.

Duration and Fees

The program is a 7-day residential program at Chennai Mathematical Institute, H1, SIPCOT IT Park, Kelambakkam, Siruseri, Chennai, from 10th to 16th May 2020. The program is offered free of cost to the students and is supported by generous donors.



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Instructions

(Take a print out of the entire document and read it carefully)

1. Register online on www.raisingamathematician.com and attach the duly filled up Recommendation letter by a teacher, Parents' approval form, Photocopies of the awards in Mathematics (received in the past three years, if any).
2. Make an online payment of Rs. 150 online by clicking the donate button on the website.
3. Attach the copy of bank transfer while filling up the online registration form.
4. Registration process would be incomplete without the payment of the registration fee. Registration has to be completed latest by **20th January 2020.**

Out of the applications received, a maximum of 100 students will be selected. The selected candidates will be informed through email on or before **31st January 2020.** List of selected candidates will be put up on www.raisingamathematician.com on or before the above date. Regret letters will not be sent to the candidates who are not selected. Selection of candidates by the committee will be final and no discussions in this regard would be encouraged.

5. The program will be offered free of cost (including food and accommodation for the participant). The travel expense is to be borne by the student/school.
6. Accommodation for accompanying parents/teachers is not available; they will have to manage it on their own. Parent/teacher accompanying the student will not be allowed to stay with the student during the program.
7. A separate letter will be sent to the selected candidates with guidelines for attending the program.
8. Please do not apply just because he/she is the top ranker of the class. The program is for those students who question a lot in Mathematics and not for those who accept it without being inquisitive.





Frequently Asked Questions (FAQ)

1. What is Raising a Mathematician Training Program (RAM TP)?

RAM TP is an annual 7-day national-level residential program that is conducted every year. In this camp students are exposed to higher level Mathematics and focus is on exploration, discussion, and enquiries rather than mere coaching.

2. How many students attend the program?

Around 100 students are selected all over India out of hundreds of applications received. Last year we had students from 12 states attend the program. About 25% of the students attending the program are girls.

3. What is the basis of selection for RAMTP?

The students are selected based on the inputs provided in the application form submitted and the Teachers' Recommendation Form. We don't give more weightage to marks scored in school or curriculum and are looking for students who display passion to pursue Mathematics as a career or want to explore application of Mathematics. If needed candidates may be interviewed face to face or via telephone. Selection for an interview doesn't automatically improve your chances of getting selected.

4. Since how many years this program is being conducted?

RAM TP 2020 is the seventh annual flagship program conducted by Raising a Mathematician Foundation (RAM Foundation). This program has received appreciation from the honourable Governor of Maharashtra in 2014.

5. Will this program help me to appear for any exam like Regional Mathematics Olympiad?

There will be no training provided specifically to cater to any exam. The objective of this program is to free the students' mind from focusing on exam preparation and dive deep into Mathematics. This is precisely why we don't conduct any test at the end of the program.





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6. What is the objective of this training program?

The objective is to encourage the bright minds to take up Mathematics as a career option and pursue research in this subject either in pure or applied math. We strongly encourage students after the program to work on some topics and present papers or display exhibits in national conferences.

7. Where will this program be conducted in 2020?

In 2020, the program will be conducted at Chennai Mathematical Institute, H1, SIPCOT IT Park, Kelambakkam, Siruseri, Chennai - 603103.

8. When will this program be conducted?

RAM TP 2020 will be held from 10th to 16th May 2020.

9. What does a typical day of a student at training program look like?

The day generally starts at around 7 am with a prayer followed by sessions with adequate breaks in between. The sessions typically end at 7:30 pm followed by dinner. Post dinner ice-breaking sessions and discussions are conducted to encourage peer based learning. Daily around 8 hours of formal sessions are conducted. This includes a guest lecture everyday by a renowned speaker from reputed institutes or a research professor or an industry expert.

10. I stay in Chennai. Will I be allowed to take my child every day and come back the next day?

Students are not allowed to leave the campus during the training program. The objective of this residential program is to encourage peer interactions after the sessions.

11. Are there separate stay arrangements for boys and girls?

Yes, the accommodation for both girls and boys are separate. Full-time female volunteers will be present in the campus to take care of the needs of girls and male volunteers for the boys.

12. How do I apply for this program?

The student, who wishes to apply, has to fill an online application and pay the application fees of Rs. 150 online. Once the documents are uploaded and the form is submitted, the candidate will receive a notification email about the successful submission of candidature.



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13. Do you provide an application fee waiver?

The application fee waiver is provided on need-based and will require your school teacher to vouch for your financial constraint. You have to write an email to raisingamathematician@gmail.com explaining why do you need the waiver.

14. What is the fee for the program?

The program is offered free of cost for the selected students. We believe that the students who are selected for this program are deserving candidates who needs to be encouraged to attend such programs. Travel cost has to be borne by the candidate. Food, accommodation, classroom training, etc is funded by RAM Foundation. If the candidate does not complete the program for whatsoever reason, a donation of Rs.5000 will have to be paid to RAM Foundation to recover the cost incurred on the student for attending the program.

15. How do you manage to offer residential program free of cost?

The training program is conducted by generous support of CMI, other organisations and individuals. If you wish to donate for this cause, contact us on raisingamathematician@gmail.com.

16. What is the last date for submission of application?

The last date for submission of online application is 20th January, 2020.

17. When will the results be declared?

The names of selected students will be displayed on www.raisingamathematician.com latest by 31st Jan, 2020.

18. Can we join the program one day later?

No student is allowed to join the program after 10th May 2020 or leave before the valedictory on 16th May 2020.

19. How can we help RAM Foundation?

Write a mail to raisingamathematician@gmail.com or call us at +91-9987375773.





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20. Can parents also stay in the campus during the training program?

No. Due to various constraints, we won't be able to accommodate parents in the campus during the training program.

21. Can teachers attend this program?

Interested teachers can write to raisingamathematician@gmail.com.





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Recommendation letter (to be filled up by the teacher)

Dear Teacher,

The Program offered at *Raising a Mathematician Training Program 2020* will be intensive and require active participation from the students. There are certain traits essential to get the maximum out of this Program. In this regard, we request you to comment upon the following points.

We thank you very much for your valuable comments.

Student's Name:

School Name & Town/City:

1. Interest in Mathematics beyond school curriculum (Yes/No). If yes, share some instance:
2. Perseverance and determination to crack a problem: Good / Very Good / Excellent / Outstanding
3. Ability to think on a new problem: Good / Very Good / Excellent / Outstanding
4. Does he/she think on discovering something on his/her own in Mathematics or solving problems in non-conventional ways? If so, share some instant:

If you are recommending more than one student, please put them in order of merit and indicate the ranking of this candidate.

Has he/she ever consulted you for doubts in Mathematics or asked you some questions? If so, what was the question that makes you feel that he/she has got a very good potential in Mathematics?

Any other comments:

Signature of the teacher:

Email id and Contact no. of the teacher (preferably cell no.):

Seal of the School (recommended):





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Parent Consent Form (to be filled up by the parent)

Dear Parent,

Please fill up the below details and upload this along with the other documents while doing the online registration.

We thank you very much for your valuable inputs.

Student's Name:

School Name & Town/City:

1. Does your child suffer from any prolonged illness/disease (like asthma, heart problems, diabetes, sleepwalking, depression, epilepsy, etc.)? Please specify the illness, if any.
2. Will he /she require parental presence during the camp for the reason stated in the above point?
3. Why do you think that your child should attend this program?
4. Since what age did you notice in your child an interest in Mathematics (Please share if you have any specific incident)?
5. Educational qualification of you and your spouse.
6. Work profile of you and your spouse.

Any other comments:

Declaration by the parent:

I hereby declare that I am willing to send my child for RAM TP 2020 and do not have objections of any sort. I shall also take the responsibility of my child's travel to the venue of the program and back home.

Signature of the parent:

Email id and Contact no. of the parent (preferably cell no.):

Room no.203, Bldg. No. I, Sarvoday Swarup, Next to R.B.T. School, Kanchangaon, Khambhalpada, Thakurli East,
Thane district, Maharashtra. Pin code-421201

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